

*By Richard Congreve Esq.*

A  
S C H E M E,  
O R  
P R O P O S A L,

For making a  
Navigable Communication  
Between the  
Rivers of *Trent* and *Severn*,  
In the County of *Stafford*.

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By *Dr.* THOMAS CONGREVE,  
*Esq.* of *Wolver-Hampton*, in the County of  
*Stafford*.

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L O N D O N.

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*Richard's* Coffee-House, in *Fleet-Street*.

MDCCLIII.

[Price 6d.]

PROCEEDINGS  
OF THE  
JURY

For the purpose of

ascertaining the



IN THE COURT OF SESSIONS

IN THE COUNTY OF DUNDEE

BY THE LORDS OF THE COURT

AND THE JURY

RETURNED

IN THE YEAR 1881

AND IN THE MONTH OF

DECEMBER

IN THE YEAR 1881

To the Right Honourable

**GEORGE ANSON,**

*Lord Anson of Soberton,*

*First Lord of the Admiralty,*

*Vice-Admiral of Great-*  
*Britain.*

**I** Take the Liberty to recommend the following Scheme to your Consideration, who, being of the same County, are not, I presume, a Stranger to the Capacity and Skill of the Author, whose Practice, as a Physician, gave him frequent Opportunities to observe the Situation and Nature of the Country for many Years; by which he was led to believe the following Scheme practicable, and was himself at the Trouble and Charge

to measure and calculate every Part of it, which proves it may be executed with little Difficulty. If, by the Influence of your Lordship, so beneficial a Scheme should be brought to Perfection, tho' your Fame cannot go further than the Circle you have carried it, by this it will be perpetuated for ever, and you will justly deserve the most grateful Thanks from your native Country, and highest Honour that can be given,

*Dum labitur et labetur in omnia  
volubilis ævum.*

THE



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T H E  
P R E F A C E.

**T**HE Ingenious Dr. CONGREVE, after many Years Observation on the Country between the Severn and Trent, formed a Design of uniting those Rivers, and was at the Labour and Expence of measuring and calculating every Part of the Levels in that Distance; and hath published this Proof of his Ingenuity, without fearing the reproachful Name of Projector, usually bestowed, by the Ignorant, on all those who attempt any thing new for the Service of Mankind. He hath shewn, by comparing it with other Works of the same Kind effected in other Countries, that this

*Design may be executed without any very great Difficulty or Expence; and the Mills and Forges on the Canal and the Navigable Rivers and Sluices will be mutually useful to each other, according to the modern Ways of conducting Improvements of this Nature.*

*The Expence will appear less considerable than may be generally supposed, by comparing it with Works of this Kind already executed; and might be less so, by Employing the Army on this Undertaking, giving them a reasonable Addition of Pay.*

*By the Account kept of the Expence of cutting the new Canal at Chester, in the Year 1735, it appears, that a Canal dug 100 Feet wide at Top, 6 Feet deep, and 60 wide at Bottom, cost 28s. every 10 Feet, which amounts to 739l. 4s. per Mile; that the Expence of that Canal, 20 Miles, did not exceed 17000l. But here a Canal of  
half*

*half these Dimensions will answer all Purposes, and will not be half the Expence.*

*A Barge 120 Feet long, 15 Feet broad, containing 1800 superficial Feet, and drawing 2 Feet Water, is equal in Weight to 3600 Cubic Feet; each Foot Cubic weighing 70 Pounds, amounts to 252000 Pound Weight; this Barge, if drawn with six Horses, will carry 126 Tuns, with 2 Feet Water, or very little more. If this Sceme be completed, it will make a Passage by Water from York to Bristol, across the middle of the Kingdom, where most of the heavy Goods are made or produced. Timber, Coals, Lead, Iron, Millstones, Lime, Alabaster, Marble, Birmingham, and all other Wares made in the Kingdom, would be carried to all Parts at a cheap Rate. What Advantage this will be to the Land-Owners, as well as to Trade, I need not mention. But*

*so beneficial a Scheme, so clearly stated, merits the Attention of the Publick; and Money bestowed on some Person of Skill to measure and execute it will be more usefully laid out than in preventing Poachers, or in building a Bridge where there was little Occasion for it, and will not be a Quarter of the Expence. No Kingdom but England would so long have neglected a Proposal so very advantageous.*



*The*



*The Distance and Fall of the Water  
from Aldersley to Burton upon  
Trent is as follows:*

|                                   | Miles. | Furl. | Perch. | Feet.   | Inch. |
|-----------------------------------|--------|-------|--------|---------|-------|
| From Aldersley to<br>Newmills is, | 2      | 1     | 25     | Fall 20 | 0     |
| Thence to Penkridge,              | 8      | 3     | 36     | 68      | 9     |
| From Penkridge to<br>Burton,      | 33     | 2     | 0      | 100     | 9     |
| Total                             | 43     | 7     | 21     | 189     | 6     |

In which Space are 17 Mills and Forges.

|                                 | Miles. | Furl. | Perch. | Feet.  | Inch. |
|---------------------------------|--------|-------|--------|--------|-------|
| From Aldersley to<br>Newbridge, | 0      | 4     | 0      | Fall 6 | 0     |
| Thence to Prestwood,            | 12     | 5     | 0      | 175    | 0     |
| From Prestwood to<br>Severn,    | 13     | 0     | 8      | 104    | 6     |
| Total                           | 26     | 1     | 8      | 285    | 6     |

In which Space are 25 Mills and Forges.

Length of the Whole, 70 Miles, 29 Perches;  
Fall both Ways 475 Feet.

There

There are upon the whole Length of the said Water 42 Mills and Forges, which, by late Improvements, will be a great Help to make the Rivers navigable, without any Damage to the Mills.

The Fall of the Water in the Canal betwixt *Petersburgh* and the *Volga*, both Ways, (that is, *East* and *West*) is 555 Feet, which is more than the Fall of the Water of this Canal by 80 Feet. *Vid.* Captain *Perry's* Account of *Russia*.

In 475 Feet (the Fall of the *Penk* and *Smethfall*) are 158 Yards, 1 Foot, which will require 32 Locks, Wares and Turnpikes, each Lock, &c. being 5 Yards high; which is not equal in Number to the Locks upon the River betwixt *Letchlade* and *London*, which, in 138 Miles, hath 36 Locks, Wares and Turnpikes.

*A Canal from Severn to Trent may be made, viz.*

Sixteen thousand Acres are in a Square whose Side is five measur'd Miles; such a Square seems to be betwixt *Esfington Windmill*, the Head of *Chillington* Mill-Pool, and the

the Tops of *Wrotteslye-Park*, *Tettenball-Wood*, *W. Hampton*, and *Bisbbury Hills*.

Seven Brooks arise from the Springs and Rain-Waters that fall on these 16000 Acres, and may all be drawn into a Magazine in the *Moors* betwixt *Tunstall* and *Penford*.

Five or six hundred Acres will be in this Magazine, if a Dam of 24 Feet high be made betwixt the new Mills at *Penford* and the Hill, in which is the *Stone-Quarry*, and another at the new Bridge of *Tettenball* 10 Feet high.

Twelve Miles or less will be the Length of the Canal from *Tettenhall* to *Prestwood*, where the *Smethstall* meets the Water from *Stourbridge*, and so goes to *Severn*.

Eight Miles or less will be the Length of the Canal from *Penford* to *Penkridge*, from whence the River will easily be made navigable to *Burton*: The Land-Floods of these 16000 Acres, that now are hurtful to Mills and Forges, by this Magazine will be made serviceable.

Seventy-one Market-Towns and Cities may trade by this Canal; more may be added.

Two Brooks run into the Pool at *Gosebrook* Mill, from whence the Water will run both into *Severn* and *Trent*, whenever the Miller pleases.

Five Brooks only feed the Magazine of St. Feriol in *Languedoc*, which hath 595 Acres in it, and supplies a Canal 64 *French* Leagues long. See *Philos. Transact.* No. 56.

Two Millions and fifty thousand Acres in the three Counties of *Stafford*, *Derby* and *Leicester*.

Twenty-four Miles Inland Navigation only to these three Counties.

One Market-Town only out of forty hath Navigation in the three Counties.

Two hundred and fifty thousand Pounds *per Ann.* got by Water-Carriage in the same Quantity of Land in the seven *Dutch* Provinces.

Two thousand six hundred and twenty-five Miles is the Length of the fifteen *Roman* Roads in *England* and *Wales*, many Parts of which are spoil'd for Want of Inland Navigation.

One thousand Pounds *per Week* lost out of the Iron Trade within six Miles of *Dudley* Castle.

One thousand Tuns of Coals might perhaps be sold every Week more than now are in the three Counties, and as many of Lead, Lime, Iron, Stone, Timber, Marble, Fullers-Earth, Wool, &c. If a Canal were made betwixt *Severn* and *Trent* by *Penk* and *Stour*, then Clothiers might trade from *Burton* to *Kinfare*, and so to *Bridgwater*, &c.

One



One Tenth of the waste Land of the three Counties inclos'd, will be worth 10000 *l. per Ann.* at 4 *s. per Acre*, which will make a Canal, and keep poor Vicars; this Canal will make an easy and cheap Carriage betwixt the Western and Northern Clothiers, and bring Fish living, in Well-Boats, to supply these three Inland Counties.

300000 *l. per Ann.* is, says Sir *Wm. Petty*, the Charge of the Land-Carriage in *England*, one Third of which might probably be sav'd, if this Canal were made betwixt *Severn* and *Trent*, and another betwixt *Severn* and *Thames* by the *Bath* River, and Market-Towns have Corn, Cheese, &c. carry'd cheaper than by Horses, and 2000 *l. per Week* might be added to the Wages of the Labourers in Husbandry and Manufactory, the Money sav'd by Water-Carriage.

Nine Parts in ten of the Product of all till'd Lands are owing to the Labour of Men and Horses, says Mr. *Locke*, so that to take off many Men and Horses from Husbandry to Land-Carriage, must be a vast Damage to Husbandry, and no small Damage to the Roads.

Two Miles and a half or more is the Length of the Magazine in the Moors betwixt *Newbridge* and *Penford* on the West

West Side of it, three Miles the Length of it on the East Side; It may contain 456 Acres.

Fifty Acres more might be added to it, by placing one Sluice on the *Dammill Brook*, out of the boggy Lands betwixt *Barnburst* and *Cronkwall*, and one other Sluice on the *Mosely Brook*, out of the boggy Lands betwixt *Penford Wood* and *Mansell-Newhouse*, upon the Road betwixt *Wolver-Hampton* and *Stafford*.

More Magazines may be made on the Brooks that come out of the Forest of *Cannock*, &c. which would fall into the Canal, tho' not into this Magazine.

Seven Mills upon the Brooks that would come into these Moors, to join the *Barnburst Brook*, viz. *Chillington-Mill*, *Dam-Mill*, *New-Mill*, *Seawall-Mill*, *Gosbrook-Mill*, *Tunstall-Mill*, and *Fordhouse-Mill*, all which depend upon Springs, and have but small Pools, except one.

If the Rains on these 16000 Acres that come into these Moors betwixt *Newbridge* and *Penford* are 36 Inches, which is less by six Inches than the Rains of *Lancashire* and *Cheshire*, which join to Part of *Staffordshire*, they are more than the Rains of *Lisle* by one Third, for their Rains are but 24 Inches, which help their Canal and that of *Mardyke*; and almost double to the Rains  
of

of *Paris*, which are 19 Inches, and perhaps to those of *Briare*, which help to fill the Canal betwixt the two Rivers of *Paris* and *Orleans*.

The Rains on these 16000 Acres will probably fill this Magazine 12 times per Ann. 2 Yards deep.

The Depth of Rain-Water, if it were to stagnate on the Earth, would amount, one Year with another, at *Townley* in *Lancashire*, to 42 Inches and a half, at *Upminster* in *Essex* 19 Inches and a Quarter, at *Zurich* in *Switzerland* 32 Inches and a half, at *Pisa* in *Italy* 43 Inches and a Quarter, at *Paris* in *France* 19 Inches, and at *Lisle* in *Flanders* 24 Inches.

Forty Acres allow'd to each Canal and its Locks, so that the Magazine of 500 Acres will fill both the Canals, and their Locks, being 80 Acres, five or six times, before it is empty once.

N. B. That the Rains on the West Side of *England* are double to those on the East Side, and that this Magazine will not be 40 Miles from *West-Chester*.

If this Canal were made, and two or three more, it's very probable that the same Number of working Horses and their Drivers now employ'd in *England*, working the same Number of Hours every Day, may improve the Product of the  
Lands

Lands of *England* to be worth 1000000 *l.* of Money *per Ann.* more than they are now. For the Horses that might be spared from Carriage on the Roads, as also those that carry Corn, &c. to Markets, might carry Marle, Lime, &c. which now lie useless in the Earth, for Improvement of Land, to make them produce much more Corn and Grass, than they now do,



OBSERVATIONS concerning the  
Rivers betwixt Oxford and Bath.

SIR James Long's Objections were made  
new in 1683-4, which are said to be  
answer'd in 1664 by Mr. Ayliffe, M<sup>r</sup>.  
Smith; &c. who were for an Inland Naviga-  
tion betwixt Avon and Isis, by a Cut to be  
made from Malmesbury to Summerford upon  
Isis near Cricklade.

Sixty thousand Pounds computed by Mat-  
thews and Basherville to be the Charge of the  
Canal from Bristol to Oxford, tho' there may  
be Rocks to be cut thro' Cap<sup>t</sup> Matthews  
Three Pounds per Ton the Price of Car-  
riage by Land, and twenty Shillings per Ton  
by Water, from Oxford to London.

Mr. Hill and Mr. Rowland Vaughan were  
said to design this in Q. Elizabeth's Time.

Judge Vaughan proposes Projectors to be  
hang'd that did not finish any Navigation  
undertaken by Subscription, if they misap-  
ply'd the Money.

From Cricklade to Purtonstake one Mile  
and a half, thence to the Foot of Purtonbill  
one Mile and an half, thence to Brinkworth  
betwixt Summerford and Malmesbury to fall  
into the Avon seven Miles. Here may a  
Canal be cut.

A Boat

A Boat might pass from *London* to *Bristol* in ten Days.

The Bill said to pass the Commons, but stopt, when twice read, with the Lords.

*Cromwell* said to offer 120000 *l.* at the Navy-Office to join the City of *London* in this designed Cut.

*Matthews* dedicates a Book about it to *K. Charles II.* An. 1670.

Vid. Mr. *Fridour's* Book, 1672, of the *Languedoc* Canal; and *Philos. Trans.* No. 56. where is a Map of it.

Mr. *Collins* says, that from Canals to water Grounds sprinkled with Salt is vast Profit.

Capt. *Matthews* had a Private Seal for the Cut granted to him, as he says, by King *Charles II.*

Thirty-six Locks, Wares and Turnpikes are upon the River *Thames* betwixt *London* and *Letchlade*, by which Navigation *London* receives the Provisions of seven Counties, and sends its Merchant-Goods to them.

It's humbly supposed, that the same Number of Locks, or fewer, may make good this Navigation betwixt *Severn* and *Trent*, and carry the Provisions and Manufactories of seven Counties, or more, to above 70 Market-Towns and Cities.

93 Miles *English* is the Length of the Canal begun betwixt the *Don* and the *Walga*,  
to

to make a Communication betwixt the *Caspian* and the *Euxine* Seas.

The *Ladoga* Canal design'd for the Use of *Petersburgh* 460 *English* Miles long, the Fall of the Rivers that fall into the *Wolga* 110 Feet, of those that fall into the *Neva* (upon which another Dock is to be made) 445 Feet Fall. Total 555.

*Vid.* Capt. *Perry's* Account of *Russia*.

Four hundred seventy-one thousand one hundred and fifty-four Men were employ'd to cut a Canal to draw down the Lake of *Mexico*, *Vid.* *Collection of Travels*. Vol. 4. Page 531.

F I N I S.

to make a communication between the Cas-  
pian and the Barents Seas.

The Borge Canal designed for the use of  
Petersburg is 40 English Miles long, the Fall  
of the River that fall into the Waga is 10  
Feet, of those that fall into the Waga (upper)  
which another Dock is to be made) 445 Feet

Fall. Total 555.

Wid. Capr. Port. Account of Russia.

Four hundred thousand men were  
one hundred and fifty thousand  
employed to cut a Canal to draw down the  
Lake of Mewic, W. Collection of Russia.

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F. A. W. R. S.



